

# ANNALES ZOOLOGICI FENNICI

---

Vol. 17 • 1980

PUBLISHED JOINTLY BY

FINNISH ACADEMY OF SCIENCES  
SOCIETAS PRO FAUNA ET FLORA FENNICA

Rauhank. 15 B, SF-00170 HELSINKI 17, FINLAND

SOCIETAS SCIENTIARUM FENNICA  
SOCIETAS BIOLOGICA FENNICA VANAMO



## Contents

Donner, K. O. & Lindström, M.: Sensitivity to light and circadian activity of <i>Pontoporeia affinis</i> (Crustacea, Amphipoda) .....	203—212
Eldon, J., Pekkarinen, M. & Kristoffersson, R.: Effects of low concentrations of heavy metals on the bivalve <i>Macoma balthica</i> .....	233—242
Eloranta, P.: Zooplankton in a watercourse polluted by a sulphite pulp mill .....	261—267
Forstén, A.: Hippariums of the <i>Hipparium mediterraneum</i> group from south-western USSR .....	27—38
Forstén, A.: Hipparium proboscideum Studer from Romania .....	159—160
Gyllenberg, G.: Feeding of the copepod <i>Eurytemora hirundoides</i> (Crustacea) on different algal cultures .....	181—184
Haila, Y., Järvinen, O. & Väistönen, R. A.: Habitat distribution and species associations of land bird populations on the Åland Islands, SW Finland .....	87—106
Hanski, I.: Migration to and from cow droppings by coprophagous beetles .....	11—16
Hanski, I.: Patterns of beetle succession in droppings .....	17—25
Hanski, I. & Kuusela, S.: The structure of carrion fly communities: differences in breeding seasons .....	185—190
Helle, E.: Lowered reproductive capacity in female ringed seals ( <i>Pusa hispida</i> ) in the Bothnian Bay, northern Baltic Sea, with special reference to uterine occlusions .....	147—158
Häkkinen, I. & Hässinen, E.: Mercury in eggs and nestlings of the osprey ( <i>Pandion haliaetus</i> ) in Finland and its bioaccumulation from fish .....	131—139
Itäniemi, J., Valtonen, T. & Fagerholm, H.-P.: <i>Polymorphus minutus</i> (Acanthocephala) infestation in eiders and its role as a possible cause of death .....	285—289
Junnikkala, E.: Rearing <i>Pieris brassicae</i> (L.) on a phospholipid and vitamin-supplemented semi-artificial diet .....	39—42
Järvinen, O. & Väistönen, R. A.: Quantitative biogeography of Finnish land birds as compared with regionality in other taxa	67—85
Korhonen, K.: Ventilation in the subnivean tunnels of the voles <i>Microtus agrestis</i> and <i>M. oeconomus</i> .....	1—4
Korhonen, K.: Microclimate in the snow burrows of willow grouse ( <i>Lagopus lagopus</i> ) .....	5—9
Laukola, S.: Seasonal changes in the fatty acid spectrum of the hedgehog's white and brown adipose tissue .....	191—201
Lehtinen, K.-J. & Oikari, A.: Sublethal effects of kraft pulp mill waste water on the perch, <i>Perca fluviatilis</i> , studied by rotary-flow and histological techniques .....	255—259
Lehtinen, P. T. & Saaristo, M. I.: Spiders of the Oriental-Australian region. II. Nesticidae .....	47—66
Lemmetyinen, R. & Rantamäki, P.: DDT and PCB residues in the arctic tern ( <i>Sterna paradisaea</i> ) nesting in the archipelago of southwestern Finland .....	141—146

Lindström, M. & Lindström, A.: Swimming activity of <i>Pontoporeia affinis</i> (Crustacea, Amphipoda) — Seasonal variations and usefulness for environmental studies .....	213—220
Lindström, M. & Lindström, A: Changes in the swimming activity of <i>Pontoporeia affinis</i> (Crustacea, Amphipoda) after exposure to sublethal concentrations of phenol, 4-chlorophenol and styrene .....	221—231
Nieminen, M. & Helle, T.: Variations in body measurements of wild and semi-domestic reindeer ( <i>Rangifer tarandus</i> ) in Fennoscandia .....	275—283
Nikinmaa, M. & Soivio, A.: The oxygen-binding properties of erythrocyte suspensions of <i>Salmo gairdneri</i> and of haemolysates in various buffers in the physiological pH range .....	43—46
Nurminen, M.: Notes on the Enchytraeidae (Oligochaeta) of the USSR .....	175—179
Oksama, M. & Kristoffersson, R.: Effects of phenol and 4-chlorophenol on ionic regulation in <i>Mesidotea entomon</i> (Crustacea) in brackish water .....	243—247
Palmgren, P.: Some comments on the anatomy of spiders .....	161—173
Pankakoski, E.: An improved method for age determination in the muskrat, <i>Ondatra zibethica</i> (L.) .....	113—121
Pekkarinen, M.: Seasonal variations in lipid content and fatty acids in the liver, muscle and gonads of the eel-pout, <i>Zoarces viviparus</i> (Teleostei) in brackish water .....	249—254
Pulliainen, E.: The status, structure and behaviour of populations of the wolf ( <i>Canis l. lupus L.</i> ) along the Fenno-Soviet border .....	107—112
Rajasilta, M.: Food consumption of the three-spined stickleback ( <i>Gasterosteus aculeatus L.</i> ) .....	123—126
Viljanen, M.: A comparison of a large diameter corer and a new hydraulic suction sampler in sampling eggs of <i>Coregonus albus</i> .....	269—273
Wotton, R. S.: Bacteria as food for blackfly larvae (Diptera: Simuliidae) in a lake-outlet in Finland .....	127—130